

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~.

The status of each claim is indicated according to **37 CFR 1.173**.

Please AMEND the claims as follows:

1. – 66. (cancelled)

67. (six times amended) An apparatus, comprising:

a virus scanner adapted to scan a file stored in a storage device for infection with a virus;
a quarantining device adapted to quarantine the file from non-infected files on the storage device, when the file is infected; and

a converting device adapted to in response to a detection of the infection with the virus prohibit use of the infected file based upon executing an encoding process for security that converts the infected file into encoded data,

thereby in response to the detection of the infection with the virus, the infected file is deleted and the encoded data is stored in another storage area different from a storage area in which the infected file was stored.

68.- 74. (cancelled)

75. (six times amended) An apparatus comprising:

a storage device adapted to store a plurality of files and a status for each of the files indicating whether each of the files is infected with a virus;

a virus checking device adapted to select a file to be checked for infection with a virus;
a quarantining device adapted to quarantine an infected file on the storage device; and
a converting device adapted to in response to a detection of the infection with the virus prohibit use of the infected file based upon executing an encoding process for security that converts the infected file into encoded data,

thereby in response to the detection of the infection with the virus, the infected file is deleted and the encoded data is stored in another storage area different from a storage area in which the infected file was stored.

76. - 78. (cancelled)

79. (six times amended) An apparatus, comprising:
a storage device adapted to store a plurality of files and a status for each of the files
indicating whether each of the files is infected with a virus;
a virus checking device adapted for selection of a file to be checked for infection with a
virus; and
a converting device adapted to in response to a detection of the infection with the virus
prohibit use of an infected file based upon executing an encoding process for security that converts
the infected file into encoded data,
thereby in response to the detection of the infection with the virus, the infected file is deleted
and the encoded data is stored in another storage area different from a storage area in which the
infected file was stored.

80.-83. (cancelled)

84. (six times amended) A method, comprising:
scanning a file for infection with a virus using a computer;
quarantining the file from non-infected files if the file is infected with a virus; and
in response to a detection of the infection with the virus prohibiting use of the infected file by
executing an encoding process for security that converts the infected file into encoded data,
thereby in response to the detection of the infection with the virus, the infected file is deleted
and the encoded data is stored in another storage area different from a storage area in which the
infected file was stored.

85.- 93. (cancelled)

94. (six times amended) A computer readable storage medium controlling a computer
by:
scanning a file for infection with a virus;
quarantining the file if infected with a virus; and
in response to a detection of the infection with the virus prohibiting use of the infected file by
executing an encoding process for security that converts the infected file into encoded data,

thereby in response to the detection of the infection with the virus, the infected file is deleted and the encoded data is stored in another storage area different from a storage area in which the infected file was stored.

95.-108. (cancelled)

109. (six times amended) A method comprising:
scanning a file for infection with a virus using a computer;
isolating the file from non-infected files, if the file is infected with a virus; and
in response to a detection of the infection with the virus prohibiting use of the infected file
via executing an encoding process for security that converts the infected file into encoded data,
thereby in response to the detection of the infection with the virus, the infected file is deleted
and the encoded data is stored in another storage area different from a storage area in which the
infected file was stored.

110. - 144. (cancelled)

145. (three times amended) A method for performing an anti-virus operation, the method
comprising:
detecting a virus-infected file in a storage device using a computer;
in response to the detection of the virus-infected file prohibiting use of the virus-infected file
based upon converting for security the virus-infected file into encoded data; and
storing the encoded data of the virus-infected file,
thereby in response to the detection of the virus-infected file, the virus-infected file is
deleted and the encoded data is stored in another storage area different from a storage area in
which the virus-infected file was stored.

146. (previously presented) The method according to claim 145 further comprising:
executing inverse conversion of said encoded data for restoring the virus-infected file.

147. (previously presented) The method according to claim 145 further comprising:
registering virus information of the virus-infected file in an infection management table.

148. (previously presented) The method according to claim 147 further comprising:

outputting the virus information for a virus analysis.

149. (previously presented) The method according to claim 145 wherein an operation of said detecting is activated periodically or activated in response to a command instruction.

150. (previously presented) The method according to claim 145 wherein the encoded data is stored in a different storage area from a storage area in which the virus-infected file was stored.

151. (previously presented) The method according to claim 145 wherein the encoded data is stored in a storage area which cannot be accessed readily.

152. (previously presented) The method according to claim 147, further comprising: deleting the virus information of the virus-infected file registered in the infection management table through an interactive process.

153. (previously presented) The method according to claim 147 wherein the virus information contains a virus name and a storage location in which the virus-infected file was stored.

154. (twice amended) A method for performing an anti-virus operation, the method comprising:
detecting a virus-infected file using a computer;
in response to the detection of the virus-infected file prohibiting use of the virus-infected file by encoding the virus-infected file for security; and
storing the encoded virus infected file,
thereby in response to the detection of the virus-infected file, the virus-infected file is deleted and the encoded data is stored in another storage area different from a storage area in which the virus-infected file was stored.

155. (twice amended) A method for performing an anti-virus operation, the method comprising:
detecting a virus-infected file in a storage device using a computer;
in response to the detection of the virus-infected file converting for security the virus-infected file into encoded data; and

storing the encoded data of the virus infected file.

thereby in response to the detection of the virus-infected file, the virus-infected file is deleted and the encoded data is stored in another storage area different from a storage area in which the virus-infected file was stored and the converting into the encoded data prohibits use of the virus-infected file.

156. (previously presented) The method according to claim 155, wherein the use comprises executing.

157. (new) The method according to claim 67 wherein the other storage area as a quarantine is an inexecutable area.